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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,592	01/22/2004	Jean-Baptiste Quoirin	S1022.81119US00	3018

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WOLF GREENFIELD & SACKS, P.C.
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BOSTON, MA 02210-2206

EXAMINER

WARREN, MATTHEW E

ART UNIT	PAPER NUMBER
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2815

MAIL DATE	DELIVERY MODE
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05/12/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/762,592	Applicant(s) QUOIRIN ET AL.	
	Examiner MATTHEW E. WARREN	Art Unit 2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17-43, 46-56 and 58-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☒ Claim(s) 15, 17-33, 43, 46-56, 58 and 59 is/are rejected.
- 7) ☒ Claim(s) 34-42, 60 and 61 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the Amendment filed on January 21, 2009.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 60 and 61 recites the limitation "the first region" and "the second region."

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15, 17, 18, 28 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Harari (US 4,933,739).

In re claims 15, 17, 18, 28 and 29, Harari shows (fig. 8) a MOS-type power component comprising: a substrate; semiconductor regions (824, 822, 823) extending through the substrate; and contacts (810b, 810c) extending through the substrate and contacting the semiconductor regions within the substrate; wherein the contacts are metal fingers (col. 3, lines 36-51).

Claims 30-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Gaul et al. (US 6,114,768 A).

In re claim 30-33, Gaul shows (fig. 7) a MOS-type power component in which semiconductor regions (P region extends through entire substrate 10) extend perpendicularly to a surface of a semiconductor chip substantially across an entire thickness thereof, wherein contacts (metal contacts 32 (col. 5, lines 23-29)) with the semiconductor regions are made substantially across the entire thickness of the semiconductor chip by conductive fingers.

Claims 15, 17-29, 43, 46-56, 58, and 59 are rejected under 35 U.S.C. 102(a) as being anticipated by Tihanyi et al. (US 6,459,142 B1).

In re claims 15, 17-29, 43, 46-56, 58, and 59 Tihanyi shows (fig. 4) a MOS-type power component, comprising: a substrate having a first main surface; a first region (2) and a second region (1) disposed within the substrate such that current flows from the first region to the second region throughout substantially an entire thickness of the substrate (see dotted line I for current path), wherein current flow in the first region is substantially parallel to the first main surface (current flow begins at source contact 3 then travels sideways toward trenched gate 17 then down the sidewall of the trenched gate); and contacts (21) extending through the substrate, wherein the first region is contacted within the substrate by at least one of the contacts; wherein the contacts are metal fingers (col. 5, lines 1-10); wherein both the first region and the second region extend through the substrate.

Allowable Subject Matter

Claims 1-14 are allowed.

Claims 34-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 15, 17-33, 43, 46-56, 58, and 59 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW E. WARREN whose telephone number is (571)272-1737. The examiner can normally be reached on Mon-Thur and alternating Fri 9:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Parker can be reached on (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2815

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew E Warren/
Primary Examiner, Art Unit 2815

May 11, 2009